<u>REMARKS</u>

Reconsideration of the above-identified patent application in view of the remarks following is respectfully requested.

Claims 1, 4-9, 11, 12, 14, 16-31, 34-39, 41, 42, 44, 46-59 and 64-66 are in this case. Claims 20-30 and 50-59 were withdrawn by the Examiner from consideration as drawn to a non-elected invention. Claims 1, 4-9, 11, 12, 14, 16-19, 31, 34-39, 41, 42, 44, 46-49 and 64-66 have been rejected under § 103(a).

§ 103(a) Rejections – Pettey et al. '712 in view of Gasbarro et al. '004

The Examiner has rejected claims 1, 4-9, 11, 12, 14, 16-19, 31, 34-39, 41, 42, 44, 46-49 and 64-66 under § 103(a) as being obvious over Pettey et al., US Patent No. 6,594,712 (henceforth, "Pettey et al. '712") in view of Gasbarro et al., US Patent No. 6,948,004 (henceforth, "Gasbarro et al. '004"). The Examiner's rejection is respectfully traversed.

Pettey et al. '712 teach an InfiniBand target channel adapter (TCA) **202** of an InfiniBand I/O unit **108** that communicates with a host **102** via an InfiniBand fabric **114**.

Gasbarro et al. '004 teaches a host fabric adapter **120** that a host system **130** uses for communicating with other systems via an InfiniBand switched fabric network **100'**.

Both host system **102** of Pettey et al. '712 and host system **130** of Gasbarro et al. '004 instruct their respective fabric adapters (TCA **202** or host fabric adapter **120**) to send packets to their respective InfiniBand networks (InfiniBand fabric **114** or switched fabric network **100'**) as described in the Background section of the above-identified patent application on page 2 lines 8-15:

To send and receive communications over the network, the client initiates work requests (WRs), which causes work items, called work queue elements (WQEs), to be placed onto the appropriate queues. The channel adapter then executes the work items, so as to communicate with the corresponding QP of the channel adapter at the other end of the link.

In the case of Pettey et al. '712 (column 11 lines 21-24),

When the CPU **208** of FIG. **2** desires to send the host **102** a message, it submits a work request **722** to the TCA **202** Send Queue **714**. The TCA **202** creates a Work Queue Entry (WQE) and places the WQE on the Send Queue **714**.

In the case of Gasbarro et al. '004 (column 7 lines 33-38),

Work requests submitted by a consumer in a form Work Queue Elements "WQEs" are posted onto appropriate work queues (WQs) from the host system **130** to describe data movement operations and location of data to be moved for processing and/or transportation, via the switched fabric **100'**.

See also Gasbarro et al. '004 column 17 lines 49-52:

"WQEs" are posted onto appropriate work queues (WQs) by the host software of the host system **130** to describe data transfer operations, via the switched fabric **100'**.

These WQEs correspond to the "request descriptors" recited in claims 1 and 33.

On page 8 of the pending Office Action, third paragraph, the Examiner has cited column 11 line 18 through column 12 line 45 of Pettey et al. '712 as teaching the limitation, recited in independent claims 1 and 31, of writing a response descriptor to a first memory location indicating the data to be read responsive to an incoming read request packet. On page 3 of the pending Office Action, first line, the Examiner has, more specifically, identified the response descriptor recited in claims 1 and 31 with the scatter/gather list (SGL) of Pettey et al. '712.

On page 8 of the pending Office Action, last paragraph, the Examiner has cited Gasbarro et al. '004 as teaching the limitation, recited in independent claims 1 and 31, of having a gather engine read information from the response descriptor and

gather the read data responsive thereto. More specifically, in this context, the Examiner has cited *e.g.* Gasbarro et al. '004 column 8 lines 28-41 and column 12 line 32 through column 13 line 36 as teaching the use of WQEs as descriptors for indicating data to be gathered. The Examiner has proposed that it would be obvious to combine the teachings of Pettey et al. '712 and Gasbarro et al. '004 to obtain the network interface adapter recited in claim 1 and the method recited in claim 31.

Accepting only for the sake of argument the Examiner's identification of the SGL of Pettey et al. '712 with the response descriptor recited in claims 1 and 31, the Examiner has failed to make a *prima facie* case for the obviousness of claims 1 and 31 because the proposed combination of the teachings of Pettey et al. '712 and Gasbarro et al. '004 would be inoperative. Essentially, the Examiner has proposed using the SGL of Pettey et al. '712 as a WQE of Gasbarro et al. '004. But SGL **900** of Pettey et al. '712, as illustrated in Figure 9 of Pettey et al. '712 and as described in column 12 lines 24-36 of Pettey et al., is only "a portion of the WQE **800**" (Pettey et al. '712 column 12 line 26) and, as such, lacks essential information, such as destination QP **804** of WQE **800** as illustrated in Figure 8 of Pettey et al. '712, that would be needed by Gasbarro et al. '004 if SGL **900** of Pettey et al. '712 were to be used by Gasbarro et al. '004 in the manner proposed by the Examiner. As stated in Gasbarro et al '004 column 7 lines 37-39 and column 17 lines 52-54 with regard to WQEs,

> Such "WQEs" typically provide all the information needed to complete Send Queue and Receive Queue operations. (emphasis added)

With independent claims 1 and 31 allowable in their present form it follows that claims 4-9, 11, 12, 14, 16-19, 34-39, 41, 42, 44, 46-49 and 64-66 that depend therefrom also are allowable.

Although claims 65 and 66 are allowable merely by virtue of depending from claims 1 and 31, Applicant respectfully points out another reason why these claims
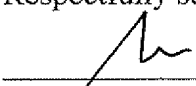
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are allowable. These claims limit the incoming read request packets of claims 1 and 31 to RDMA read request packets. Applicant maintains the validity of the arguments in defense of claims 65 and 66 that were presented in the response, filed July 15, 2008, to the Office Action mailed January 17, 2008. In the interest of brevity, Applicant does not repeat those arguments, but merely points to the fact that Gasbarro et al. '004 teach specifically *against* the use of WQEs in responding to RDMA read request packets, for example in column 7 lines 46-49:

> For an RDMA operation, the WQE also specifies the address in the remote consumer's memory. Thus an RDMA operation does not need to involve the receive work queue of the destination. (emphasis added)

Note that the "WQE" in this citation is the WQE of the requestor, not the WQE of the responder.

In view of the above remarks it is respectfully submitted that independent claims 1 and 31, and hence dependent claims 4-9, 11, 12, 14, 16-19, 34-39, 41, 42, 44, 46-49 and 64-66 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

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